

# Kleen Sweep 35W Sweeper

Model  
HM35BQP

OPERATION

SERVICE

PARTS

CARE



**Minuteman®**

# **Minuteman®**

This manual is furnished with each new **MINUTEMAN KLEEN SWEEP 35W™**. This provides the necessary operating and preventive maintenance instructions. Operators must read and understand this manual before operating or servicing this machine.

This machine was designed to give you excellent performance and efficiency. For best results and minimal cost, please follow the general guidelines below:

Operate the machine with reasonable care.

Follow the manufacturers suggested maintenance instructions as provided in this booklet.

Use original Minuteman supplied parts.

## **Technical Specifications**

### **Dimensions and Weight**

Length, Total: 54.72" (139mm), Width, Total: 31.78" (840mm)

Height Over Handlebar: 40.57" (1030mm)

Weight, Without Batteries: 208lbs (95kg)

Weight, With Batteries: 342lbs (155kg)

### **Traveling and Sweeping Performance**

Speed, Forward: 3mph (4.83km/h)

Sweeping Width, With Side Broom: 34" (850mm)

Sweeping Capacity With Side Broom, Max.: 36.6 sq. ft (3400m<sup>2</sup>)

Theoretical Max Rate of Climb: 15% grade

### **Filter System**

Filter Area: 1.5 ft<sup>2</sup> (0.139 m<sup>2</sup>)

Number of Filter Elements: 1 piece

### **Dust Extractor Fan**

Speed: 2500rpm

### **Broom Roller**

Length / Dia.: 28.61/9.84" (700 / 250mm)

Wear Limit (approx.): 9" (230mm)

Speed: 510rpm

Sweeping Track Width: 2" (50mm)

Rows of Bristles: 10

### **Side Broom**

Diameter: 12.25" (47mm)

Speed: 94rpm

### **Dirt Hopper**

Capacity: 12.5 Gal (47liters)

### **Tires**

Caster Wheel, Front, Dia.: 4.92" (125mm)

Rear Wheels, Dia.: 5.9" (150mm)

### **Electric Drive System**

DC-Motor Voltage: 12V

Power Rating / Speed: 550W / .75 Hp

Current Dissipation: 57A

### **Noise Emission**

Sound pressure level: 64dB (A)



DECLARATION OF CONFORMITY

**MANUFACTURER'S NAME:** Minuteman International Inc.

**MANUFACTURER'S ADDRESS:** 111 South Rohlwing Road  
Addison, IL. 60101

**EQUIPMENT DESCRIPTION:** KLEEN SWEEP 35W

**EQUIPMENT MODEL DESIGNATION:** HM35B, HM35BQP

Application of Council Directives: 89/392/EEC

Harmonized EN standards complied with: EN 292

I, the undersigned, hereby declare that the equipment specified above conforms to the above Directive(s) and Standard(s).

**SIGNATURE:**

*Jeffrey Pollack* **DATE:** 7/22/04

**PRINTED NAME:**  
**TITLE:**

Jeffrey Pollack  
Standards Engineer

Form: ECO 79

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## **IMPORTANT SAFETY INSTRUCTIONS**

**Operators must read and understand this manual before operating or maintaining this machine.**

**Do not operate this machine in flammable or explosive areas.**

The following information below may cause a potential hazard to the operator and equipment. Read this manual carefully and be aware when these conditions can exist. Take necessary steps to locate all safety devices on the machine and train the personnel operating the machine. Report any machine damage or faulty operation immediately. **Do not use machine if it is not in proper operating condition.**

### **FOR SAFETY DURING OPERATION:**

Keep hands and feet clear of moving parts while machine is in operation.

Make sure all safety devices are in place and operate properly. All covers, doors and latches must be closed and fastened before use.

During operation, attention should be paid to other persons in the work area and especially if small children are present.

Electric motors and components can cause an explosion when operated near explosive materials or vapor. Do not operate this machine near flammable materials such as solvents, thinners, fuels, grain dust, etc.

Store or park this machine on a level surface only, with parking brake engaged. To prevent unauthorized use, machine should be stored or parked with the key removed.

This machine is designed for level operation only. **Do not operate on ramps or inclines over 15% grade.**

This machine is not suitable for picking up hazardous dusts.

Use caution when moving this machine into areas that are below freezing temperatures. Any water in the tanks or hoses can cause damage to the machine.

### **FOR SAFETY WHEN SERVICING or MAINTAINING MACHINE:**

For safety reasons, the engine hood is equipped with a safety switch. Function of this safety switch must not be bypassed.

Stop on level surface.

Disconnect the power to the machine when charging batteries or during installation or removal of brushes.

Avoid moving parts. Do not wear loose jackets, shirts, or sleeves when working on machine.

Avoid contact with battery acid. Battery acid can cause burns. When working on or around batteries, wear protective clothing and safety glasses. Remove metal jewelry. Do not lay tools or metal objects on top of batteries.

Charging batteries generates explosive gasses. **Do not charge batteries when open flames or sparks are present. Do not smoke.** Make sure the charger is turned off before disconnecting it from the machine.

Charge the batteries in a well-ventilated area with the battery cover removed completely.

Do not clean machine with a pressure washer.

Authorized personnel must perform repairs and maintenance. Use Minuteman supplied replacement parts.

## **SAVE THESE INSTRUCTIONS**

### **Proper Use**

The Kleen Sweep 35W vacuum sweeper has been designed exclusively for sweeping floor surfaces, including production facilities, warehouses, parking areas, and pedestrian areas, to collect dry and moist matter. Whatever sort of use beyond the specified range will be deemed improper use; the manufacturer cannot be held liable for consequential damage. The term of proper use also includes compliance with the manufacturer's instructions about operation, maintenance and repair. The Kleen Sweep 35W may be used, serviced and repaired by persons only that are familiar with the machine and are aware of possible hazards.

### **Inspection**

Carefully unpack and inspect your Kleen Sweep 35W for shipping damage. Follow unpacking instructions on shipping pallet. Each unit has been tested and thoroughly inspected before shipment. Any damage is the responsibility of the delivery carrier who should be notified immediately.

### **Electrical**

This machine is battery operated and designed to operate on 12 volts DC (2) 6-volt batteries.

### **Batteries**

The recommended batteries are rated 275Ah (Minuteman P/N 956740).

We do not recommend mixing AMP hour capacities. Any alternate battery sets can be used if they equal physical size and capacity.

### **Operator Responsibility**

*Read this manual carefully before operating this machine.*

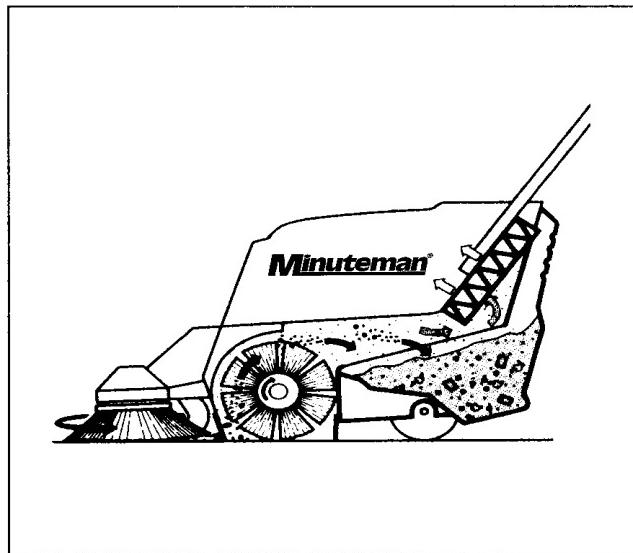
*The operator is responsible in taking care of the daily maintenance and check ups of the machine to keep it in good working condition. The operator must inform the service mechanic or supervisor when the scheduled maintenance intervals are required as stated in the MAINTENANCE section of this manual.*

### **Special Instructions for Handling Batteries**

Never leave batteries in discharged condition for an extended period of time, but re-charge them as soon as possible. In order to preclude risks to health, eating, smoking and drinking are forbidden in battery charging stations and rooms. Satisfactory ventilation must exist in the battery charging area. Batteries must not be connected to or disconnected from the power supply as long as they are energized. Top up using distilled water only. Never add battery acid when the cells are in good condition. To avoid leakage currents, make sure that the batteries are always kept in dry and tidy condition. Protect them against dirtiness, e.g. by metallic powder. Do not put metallic objects or tools on the batteries. Risk of short circuits and fuming-off! When handling batteries, wear appropriate protective garments such as protective gloves and finger-stalls. In particular when checking the acid density, do not use any open flames (danger of explosion

## Kleen Sweep 35W – How it Works

The side broom is going to collect dirt out of corners & niches and carries it into the track of the main broom. Fine dust involved is extracted by a suction fan and held back by a filter. Dust-free only air will exit the machine.

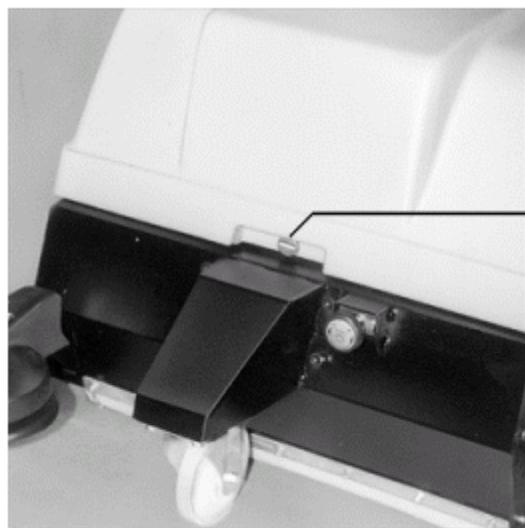


## First Operation

### Assembly

To reduce the box volume the handlebar is folded forward and the side broom is packed unassembled. Assemble these items as follows:

- Unfold the handlebar and secure on both sides with the enclosed hex nuts and washers. Connect the protective caps.
- Mount the screw to connect the traction drive control bow with the control cable.
- Tilt machine back until resting on the handlebar. Attach side broom with bolt. Bolt should be torque tightened snugly only to avoid damage to the broom hub.

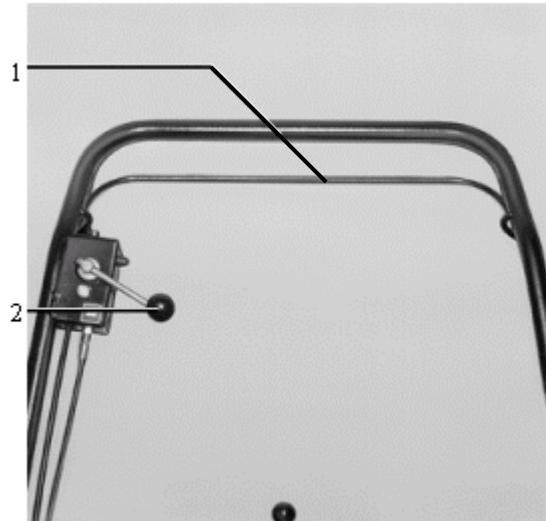


### Installing / Servicing the Batteries

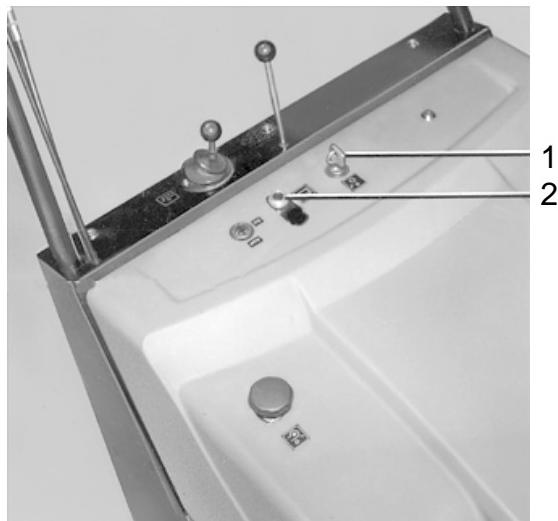
#### B Open the hood

- 1 • Pull the key from the key switch
- Open the hood lock (1) at the front side with a screw-driver
  - Slot horizontal = close
  - Slot vertical = open
- Tilt the hood upwards

## Operation of the Kleen Sweep 35W



1. Traction Drive control bow
2. Control lever for side broom



1. Key Switch
2. Pilot Light, Green



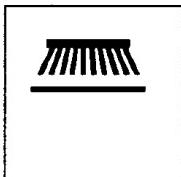
1. Hand wheel for broom roller vertical adjustment
2. Pedal to set parking brake.

## Controls

Traction drive control bow  
to connect / disconnect wheel drive

- pull bow on handlebar up = engages traction drive
- return bow = disengages traction drive

(machine will stop = safety mode)



### Control lever for side broom

Lowers and lifts the side broom

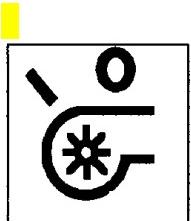
- Lever horizontal = side broom down
- Lever vertical (up) = side broom up



### Control lever for dirt hopper

Unlocks the dirt hopper

- Lever RH = unlocked
- Lever vertical (up) = locked

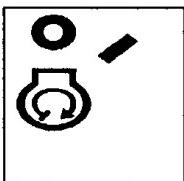


### Rotary knob for suction fan flap

Opens and closes the suction fan flap

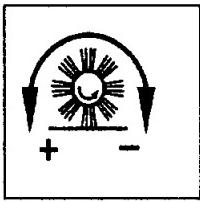
- Rotate knob CW = close flap
- Rotate knob CCW = open flap

**Note:** keep suction fan flap closed when working on wet floors or with wet matter.



### Key-switch

Turn ignition ON/OFF, secures machine against unauthorized use  
0 = OFF  
I = ON



### Hand wheel for Main Broom Adjustment

Adjust roller brush load (sweeping track width). Best setting is 2" (50mm).

- Turn Hand wheel CW = Reduced track width (low brush load)
- Turn Hand wheel CCW = Extended track width (high brush load)

### Pilot light, GREEN

Turns ON, when Key switch is ON

### Key-switch

Connect and disconnect the drive motor and to secure the machine against unauthorized use.

## How to Use the Kleen Sweep 35W

### Turn motor ON and OFF

- Turn key-switch to "I" = electric motor runs
- Turn key-switch to "0" = electric motor stops

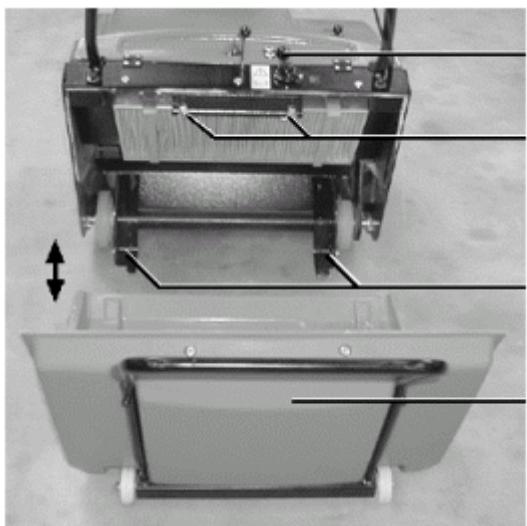
### Sweeping with the Kleen Sweep 35W

- Start / switch-on
- Open dust extractor fan flap

Note: always keep dust extractor fan flap closed, when sweeping wet areas or wet matter

- Lower side broom
- Actuate traction drive control bow
- Empty dirt hopper as required

## Empty Dirt hopper

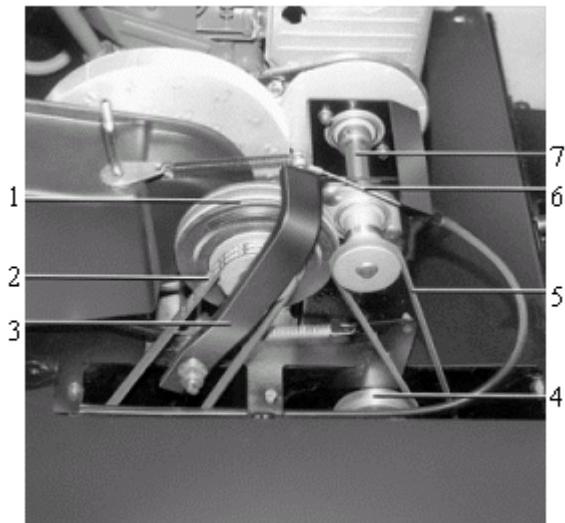


1 1 Dirt hopper control lever      2 Latch  
3 Bar for dirt hopper wheels      4 Dirt hopper

- 2
- Depress lever (1) to the right to unlock
  - Hold dirt hopper by its handle (3) and pull to the rear, empty hopper
  - Slide dirt hopper into opening, exert pressure against latch (2) until click is audible, to ensure the dirt hopper is installed in place.
- 3
- 4

## Traction Drive

The traction drive system uses a friction wheel (1) and a V-belt (2) driving the wheel axle. When actuating the traction drive control lever, the friction wheel arm (3) with its friction wheel (1) is pressed against the drive shaft (7), thus allowing power transmission. Note: dust extractor fan and side broom will rotate as soon as motor is running. Keep hands and fingers away from any moving parts to avoid injury.



1. Friction wheel  
2. V-belt  
3. Friction wheel arm  
4. Cocking roller for broom roller drive  
5. V-belt for broom roller drive  
6. Control cable for friction wheel arm  
7. Drive shaft for traction drive, broom roller and side broom drive assy's.

## Replace Broom Roller

The broom roller bears 10 rows of bristles and consists of 4 halves. A new broom is 9.8" dia. (250mm). The broom roller should be replaced when reaching a dia. of 9" (230 approx. mm) to function properly.

To remove the broom roller:

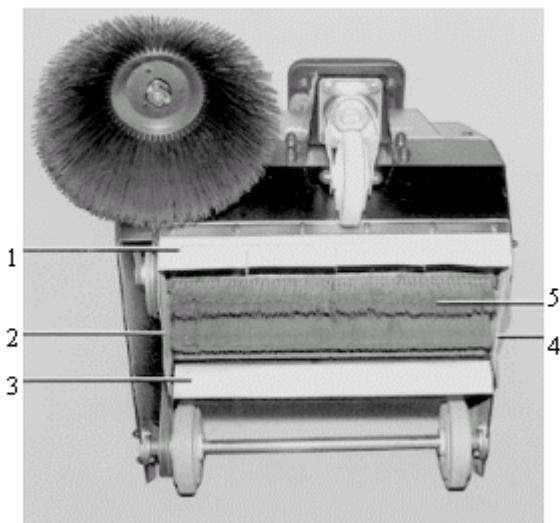
- Tilt the Kleen Sweep 35W back on the handlebar, as shown. Remove 4 ea. cylinder Hexagon screws, rotate roller through 180, and remove cylinder Hexagon screws from

the other half. Pull drive pin out of broom shaft. For installation, reverse the above sequence of operations.

### Adjust Sweeping Track

In case of broom roller wear and after replacing the roller broom, adjust sweeping pattern as follows:

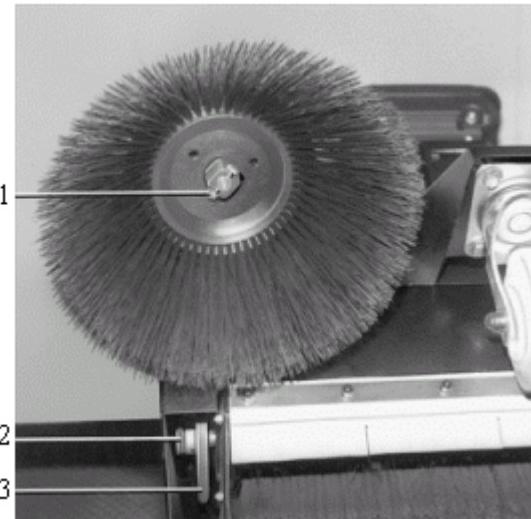
- Start the machine and rotate broom roller for a short period of time (static)
- Lift front end of machine and pull back.
- If adjusted properly, a parallel line of sweep is visible on the ground (sweeping track). This sweeping track width is adjusted to approx. 2" (50 mm) by rotating the hand wheel CW or CCW. Sealing strips (1 to 4) have to be inspected for wear in regular intervals and replaced as required. Sealing strips slightly should touch the ground.



1. Sealing Strip, Forward
2. Sealing Strip, Right Hand
3. Sealing Strip, Rear
4. Sealing Strip, Left Hand
5. Broom Roller

### Replacing the Side Broom

- Tilt the Kleen Sweep 35W back on its handlebar (also refer to previous section, "replace broom roller")
- Remove attaching bolt (1) underneath side broom
- Pull-off side broom
- Plug-on new side broom and secure; torque attaching bolt light tight only, to avoid damage to the broom hub.



- 1 side broom attaching bolt
- 2 round belt for side broom drive
- 3 V-belt for broom roller drive

### Replacing the Side Broom V-Belt

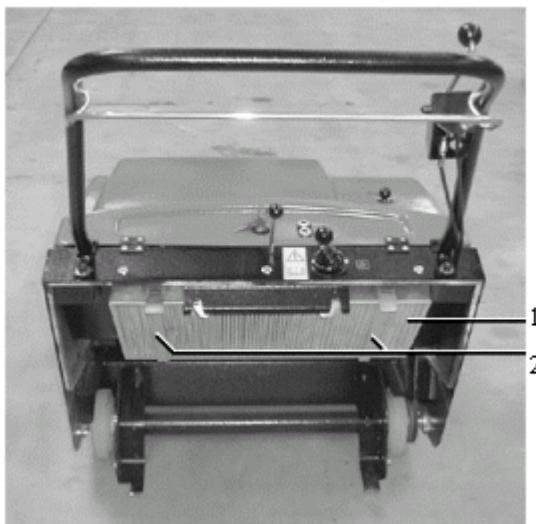
- Tilt the Kleen Sweep 35W back on its handlebar (refer to section, "Replace Broom Roller")
- Remove hood (3 ea. Screws)
- Lift side broom and uncock round belt
- Remove round belt and assemble new one.
- **NOTE:** Refer to direction arrow.



- 4 Round belt
- 5 Pulley

### Filter System – Dust Extractor

fine dust in the broom housing is suctioned through a filter module by the dust extractor fan. The filter module (1) is located in the rear part of the machine and is removed as follows:



1. Filter Module
2. Straps

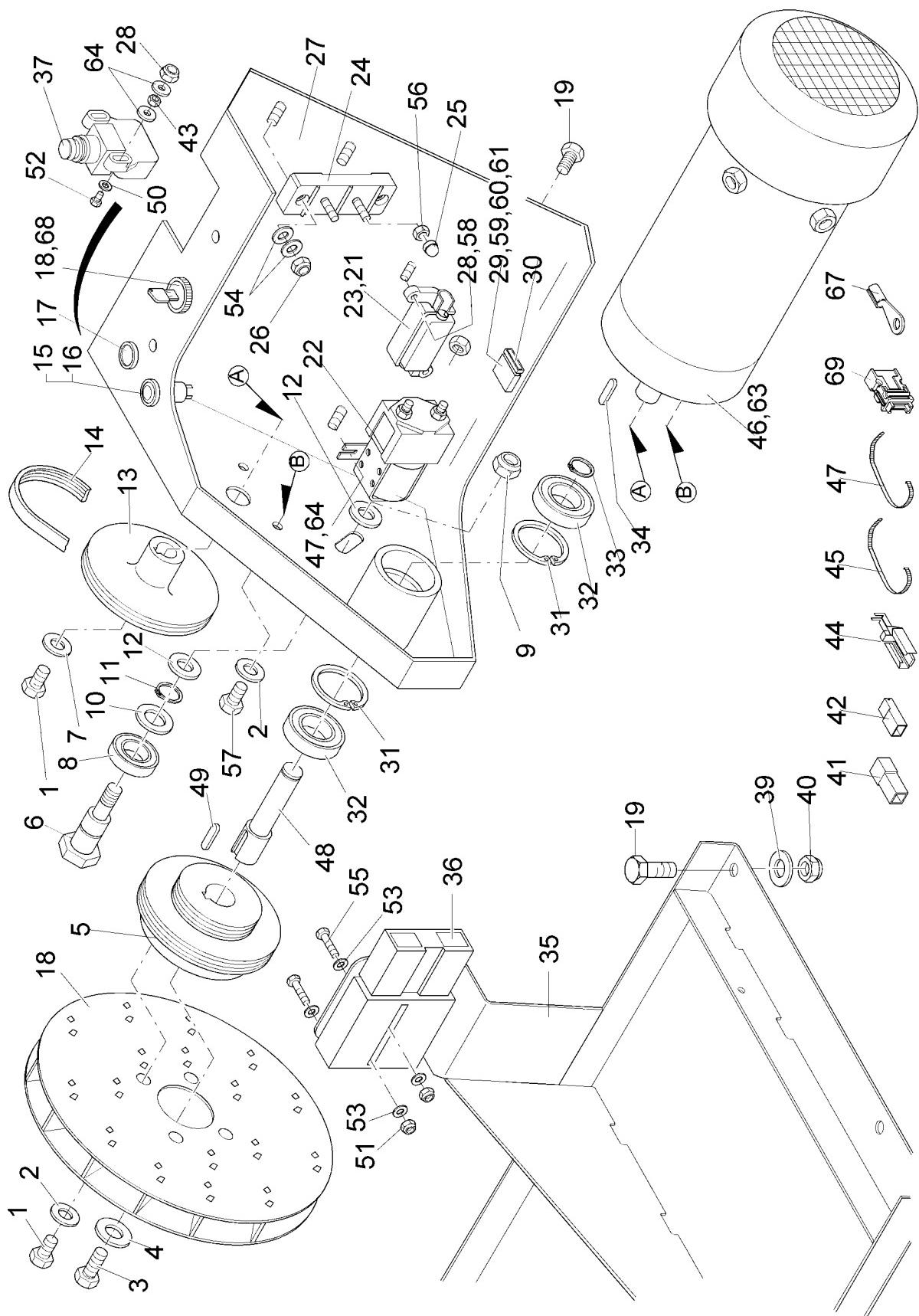
- Disconnect Power
- Remove dirt hopper
- Unhook straps (2) at top end and remove filter module (1)
- Carefully shake filter clean or clean with vacuum cleaner (do not damage filter element)
- Re-assemble filter module in true position (arrow towards machine) and re-attach straps
- Install dirt hopper

## Maintenance

Compliance with our recommended maintenance and service schedule will guarantee a dependable machine all the time. It is better and cheaper to take precautions instead of facing costly repair work. If your in-house facilities are unable to perform the work per maintenance schedule, your authorized distributor will be glad to conclude a maintenance agreement with you. For all inquiries or parts orders, always specify chassis and motor numbers as printed on the data plate. The data plate is located on the left side under the hood of the handlebar. When performing cleaning or service work or replacing parts, stop the motor, pull ignition key and disconnect the power. Use adequate tooling for maintenance, servicing and adjustment jobs only. As far as safety is concerned, spare parts will at least be of the same quality as genuine parts. When working on the electrical system, disconnect battery plug.

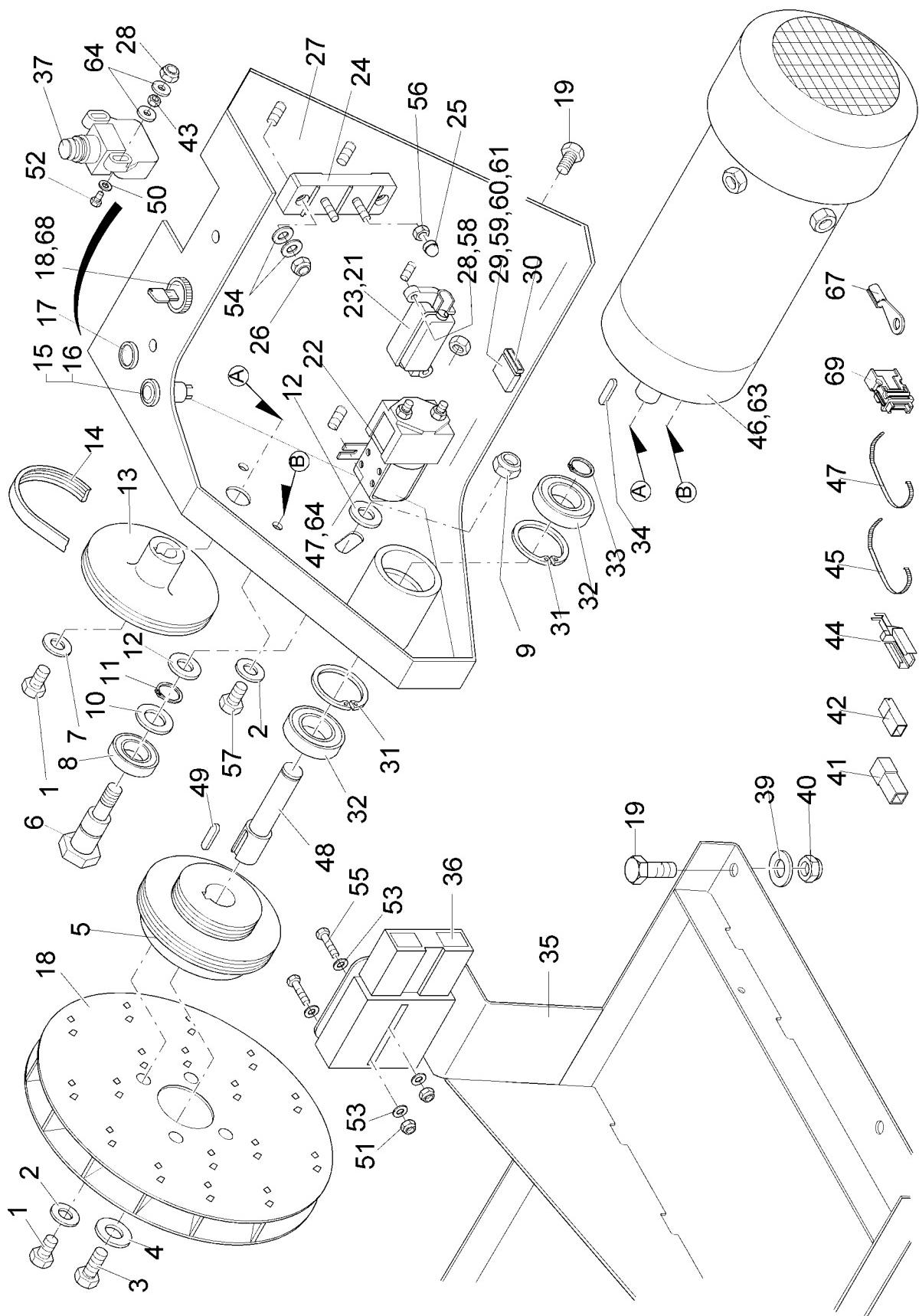
Daily	Per Service Hours		
	50	100	200
Empty dirt hopper, clean the guide edges inside the chassis	Check broom roller and side broom for wear and foreign matter (e.g. Tape, Wire), replace as required		
Charge Batteries	Check sweeping track width, adjust as required		
	Check all sealing strips for appearance, replace as required. Strip tips should slightly tough the floor; adjust as required	Check drive belts for wheel, extractor fan, broom roller and side broom for appearance and wear, adjust tension or replace as required Check traction drive control cable, adjust as required Check dust extractor and filter system for good seal, replace as required Check dust extractor fan and flap for function Check dirt hopper lock	
			Clean Motor, Check carbon brushes for ease of movement and wear, clean as required

## **Exploded views**



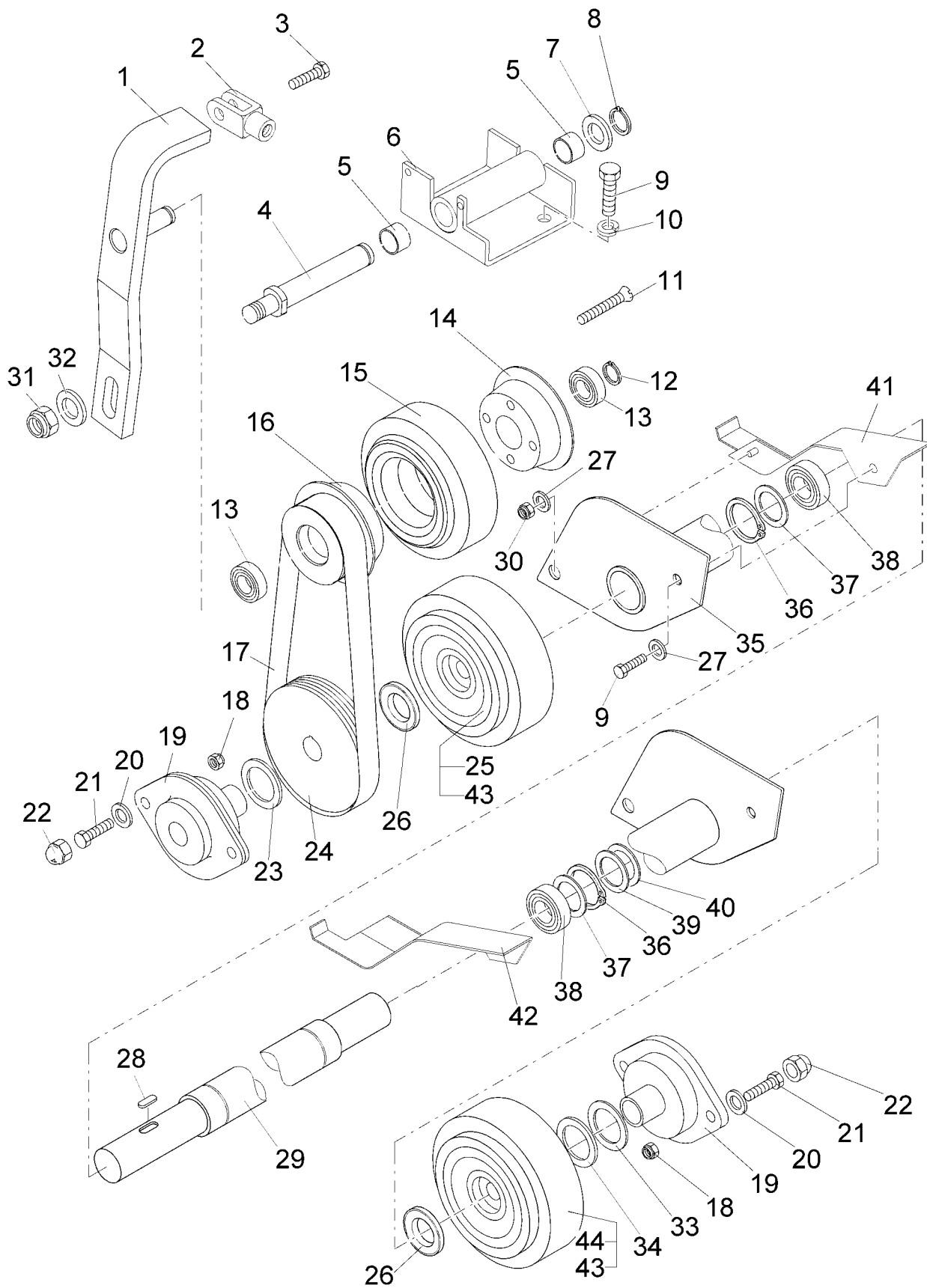
## Traction Drive

Bild Item Rép.	Best.-Nr. PN Réf. No.	Stck. Qty. Oté.	Teilbezeichnung	Description
1	10-450	5	6kt-Schraube	Hex. bolt
2	73-094	8	Sperrkantscheibe	Detent washer
3	05-309	3	6kt-Schraube	Hex. bolt
4	04-290	1	Scheibe	Washer
5	53-168	1	Riemenscheibe	Belt pulley
6	53-173	1	Bolzen	Bolt
7	13-512	2	Scheibe	Washer
8	70-541	1	Kugellager	Ball bearing
9	05-150	1	6kt-Mutter	Hex. nut
10	15-518	3	Paßscheibe	Adjusting shim
11	02-223	1	Sicherungsring	Retaining ring
12	04-652	2	Scheibe	Washer
13	74-590	1	Riemenscheibe	Belt pulley
14	71-224	1	Riemen Conti-V	Belt conti-V
15	13-375	1	Kontrolleuchte, grün	Pilot lamp, green
16	101-426	1	Glühlampe	Bulb
17	107-492	1	Verschlussstopfen	Plug
18	02-171	1	Schlüsselschalter	Key switch
19	05-308	6	6kt-Schraube	Hex. bolt
20	66-168	1	Lüfterrad	Fan wheel
21	90-355	1	Sicherung	Fuse
22	74-468	1	Magnetschalter	Ignition switch
23	90-351	1	Sicherungshalter	Fuse holder
24	15-283	1	Klemmblock	Clamping block
25	52-591	2	Schutzkappe	Protective cap
26	05-134	3	6kt-Mutter	Hex. nut
27	32-192	1	Halterahmen	Hold frame
28	13-383	2	6kt-Mutter	Hex. nut
29	50-956	1	Sicherungsgehäuse	Fuse box
30	90-612	1	Stecksicherung	Fuse link
31	12-632	2	Sicherungsring	Retaining ring
32	70-636	2	Kugellager	Ball bearing
33	02-234	1	Sicherungsring	Retaining ring
34	05-426	1	Paßfeder	Adjusting spring



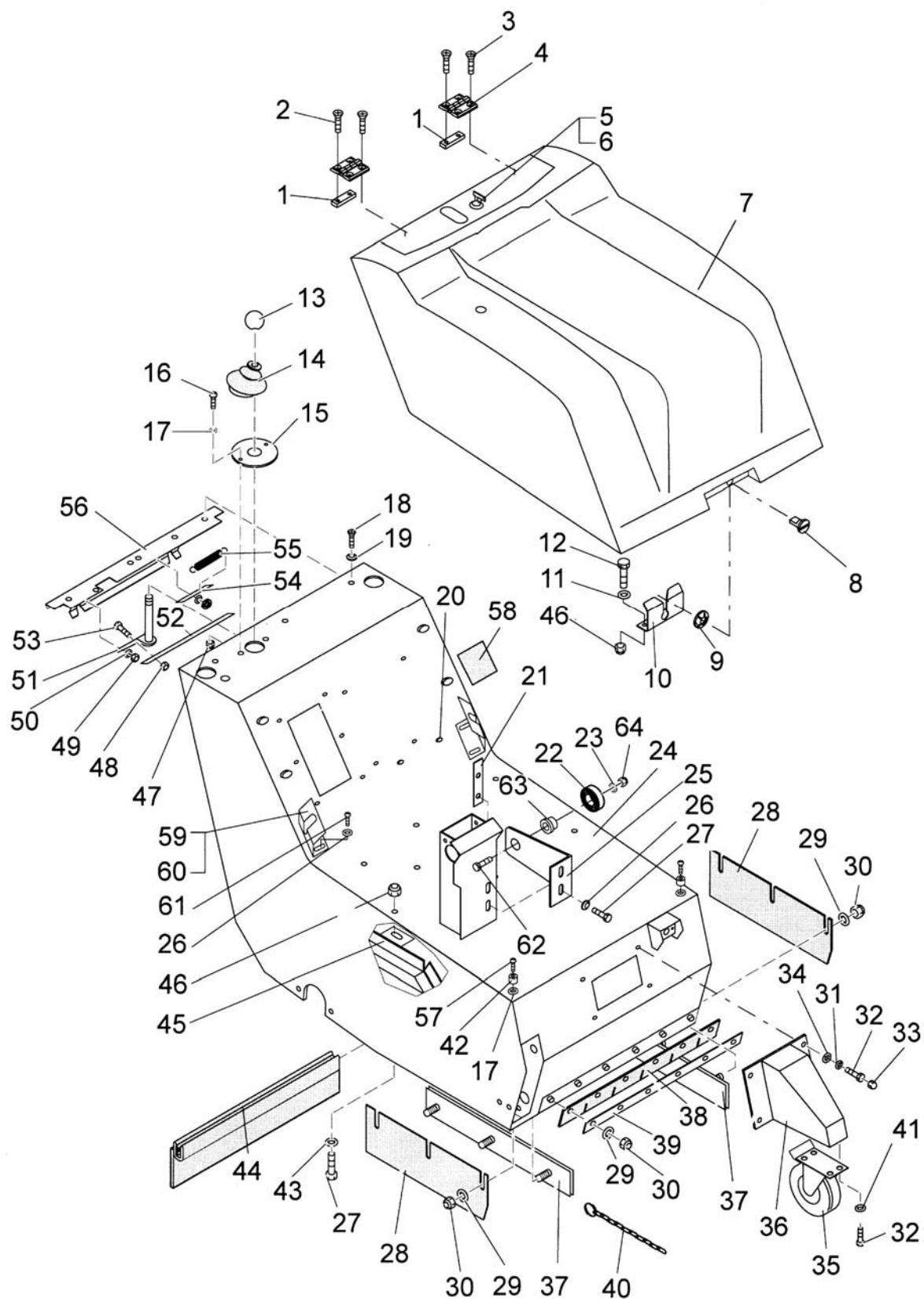
## Traction Drive

Bild Item Rép.	Best.-Nr. PN Réf. No.	Stck. Qty. Oté.	Teilbezeichnung	Description
35	105-477	1	Batteriewanne	Battery tray
36	107-555	1	Batteriestecker	Connector
37	92-761	1	Schalter	Switch
39	05-375	8	Scheibe	Washer
40	05-151	4	6kt-Mutter	Hex. nut
41	08-365	1	Gehäuse für Stecker	Plug housing
42	08-364	9	Gehäuse für Hülse	Socket housing
43	05-281	2	6kt.Mutter	Hex. Nut
44	55-967	1	Flachsteckhülse	Flat connector sleeve
45	12-101	6	Kabelbinder	Cable tie
46	71-223	1	Elektromotor	Electro motor
47	12-115	3	Kabelbinder	Cable tie
48	53-172	1	Welle	Shaft
49	12-628	1	Paßfeder	Adjusting spring
50	55-715	2	Scheibe	Washer
51	05-152	2	6kt-Mutter	Hex. nut
52	02-720	2	Linsenschraube	Fillister-head screw
53	05-373	2	Scheibe	Washer
54	95-877	6	Scheibe	Washer
55	05-329	2	6kt-Schraube	Hex. bolt
56	05-333	4	6kt-Mutter	Hex. nut
57	05-301	4	6kt-Schraube	Hex. bolt
58	05-371	2	Scheibe	Washer
59	02-218	1	6kt.-Schraube	Hex. bolt
60	55-374	1	Scheibe	Washer
61	02-220	1	6kt-Mutter	Hex. nut
63	87-667	4	Kohlebürste	Carbon brush
64	55-552	2	Scheibe	Washer
67	12-640	1	Kabelschuh	Ring terminal
68	74-589	1	Schlüssel	Key
69	73-365	1	Sicherungshalter	Fuse holder



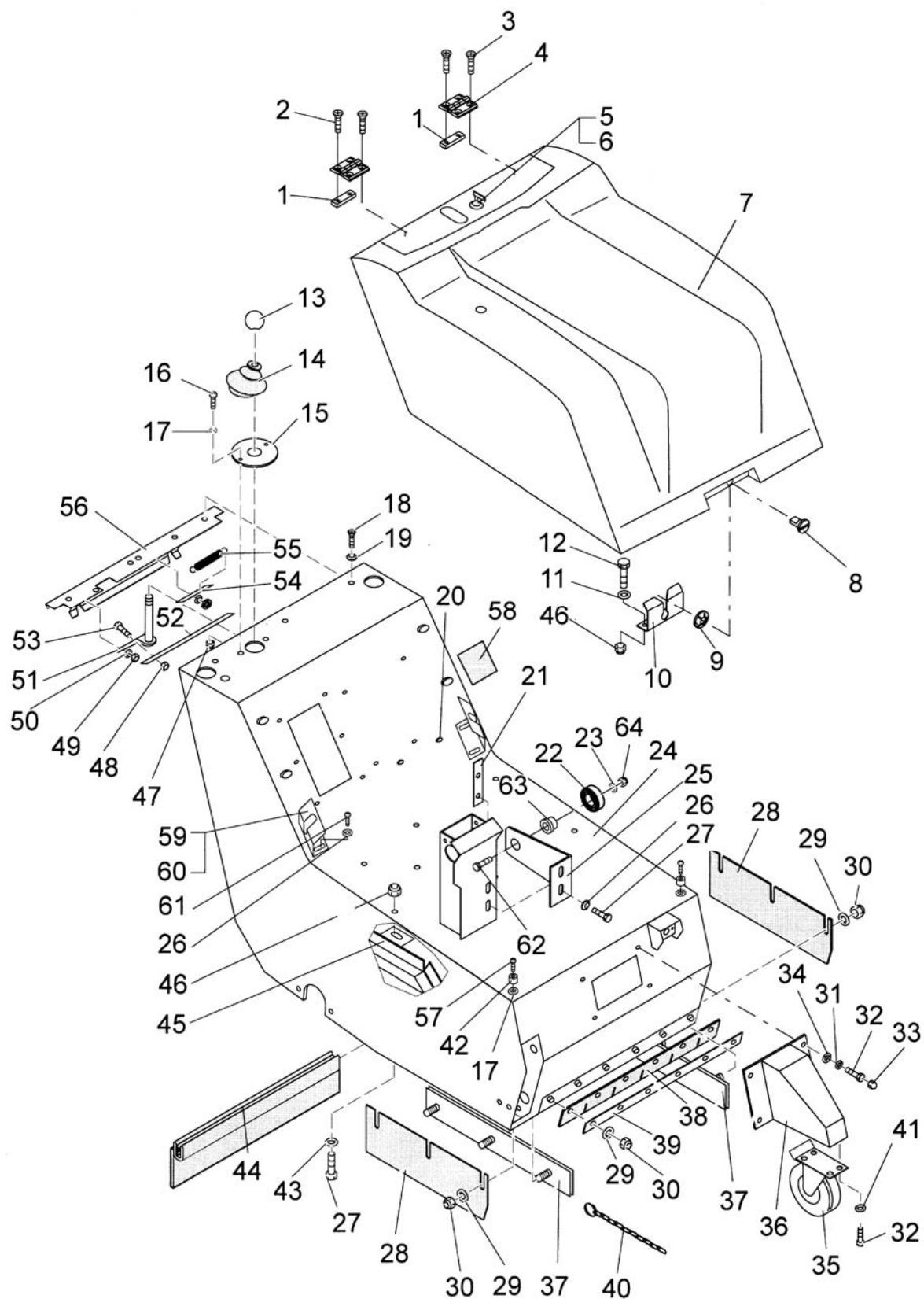
## Travel Drive

Bild Item Rép.	Best.-Nr. PN Réf. No.	Stck. Qty. Oté.	Teilbezeichnung	Description
1	105-100	1	Hebel	Lever
2	85-157	1	Gabelkopf	Fork head
3	05-303	1	6kt-Schraube	Hex. bolt
4	105-102	1	Bolzen	Bolt
5	04-656	2	DU-Buchse	DU-Bushing
6	105-101	1	Halter	Holder
7	05-378	1	Scheibe	Washer
8	02-234	1	Sicherungsring	Retaining ring
9	05-308	6	6kt-Schraube	Hex. bolt
10	05-341	2	Federring	Lock washer
11	52-926	4	Senkschraube	Countersunk screw
12	07-244	1	Sicherungsring	Retaining ring
13	12-483	2	Kugellager	Ball bearing
14	95-878	1	Felgenhälfte	Rim half
15	91-186	1	Reifen	Tyre
16	95-879	1	Riemenscheibe	Belt pulley
17	91-184	1	Riemen Conti-V	Belt conti-V
18	05-152	4	6kt-Mutter	Hex. nut
19	92-852	2	Flanschlager	Bearing
20	05-373	4	Scheibe	Washer
21	05-301	4	6kt-Schraube	Hex. bolt
22	52-591	4	Schutzkappe	Protective cap
23	04-159	1	Stützscheibe	Back-up disc
24	53-150	1	Riemenscheibe	Belt pulley
25	107-043	1	Rad, rechts	Wheel, R.H.
26	10-241	2	Nilos-Ring	Nilos-ring
27	74-008	2	Sperrkantscheibe	Safety washer
28	12-628	1	Paßfeder	Adjusting spring
29	107-044	1	Radachse	Wheel axle
30	05-335	2	6kt-Mutter	Hex. nut
31	05-149	2	6kt-Mutter	Hex. nut
32	15-120	2	Scheibe	Washer
33	12-568	1	Paßscheibe	Adjusting shim
34	05-379	1	Scheibe	Washer
35	105-480	1	Wippe	Rocker
36	05-431	2	Sicherungsring	Retaining ring
37	13-651	2	Stützring	Back-up disc
38	04-625	2	Kugellager	Ball bearing
39	04-643	2	Paßscheibe	Adjusting shim
40	15-370	1	Paßscheibe	Adjusting shim
41	105-481	1	Winkel, links	Angle, L.H.
42	105-482	1	Winkel, rechts	Angle, R.H.
43	04-145	2	Innen ring	Inside ring
44	107-042	1	Rad, links	Wheel, L.H.



## Chassis – Covering

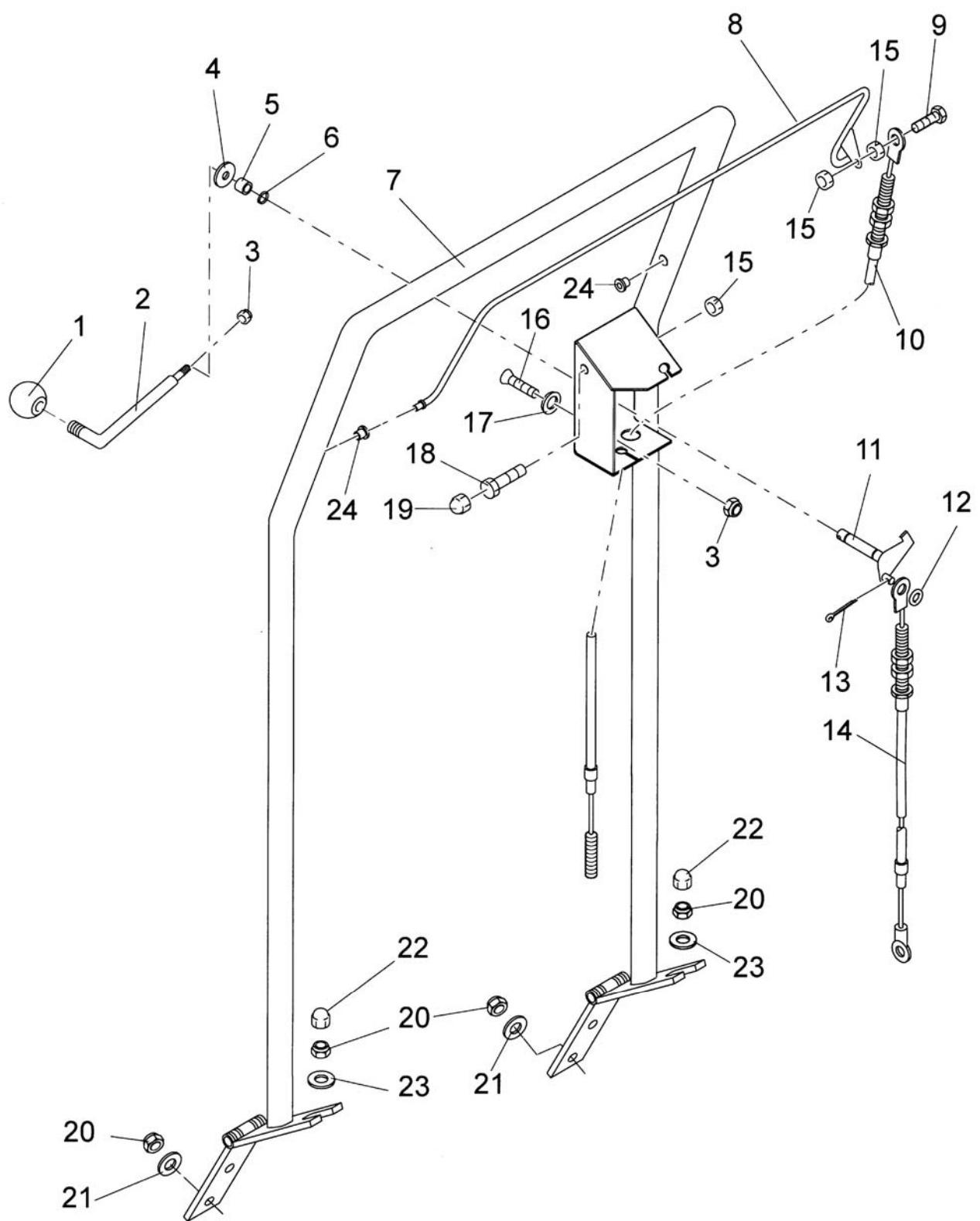
Bild Item Rép.	Best.-Nr. PN Réf. No.	Stck. Qty. Oté.	Teilbezeichnung	Description
1	85-368	2	Lasche	Plate
2	15-774	4	Senkschraube	Countersunk screw
3	04-455	4	Senkschraube	Countersunk screw
4	02-923	2	Scharnier	Hinge
5	02-169	1	Zündschalter	Ignition switch
6	74-589	1	Schlüssel (Satz)	Key (set)
7	107-554	1	Haube	Hood
8	105-096	1	Drehriegel	Twistlock
9	53-879	1	Sicherungsscheibe	Retaining disc
10	105-095	1	Riegelblech	Locking plate
11	13-512	6	Scheibe	Washer
12	05-301	2	6kt-Schraube	Hex. bolt
13	15-467	1	Kugelkopf	Ball element
14	53-112	1	Gummibalg	Rubber below
15	53-111	1	Haltescheibe	Locking disc
16	73-155	2	Linsenschraube	Fillister head srew
17	05-371	6	Scheibe	Washer
18	15-468	3	Senkschraube	Countersunk screw
19	15-769	3	Hohlscheibe	Hollow disc
20	07-380	2	Verschlußstopfen	Plug
21	04-144	1	Gewindeplatte	Threaded plate
22	70-541	1	Kugellager	Ball bearing
23	74-008	1	Sperrkantscheibe	Safety washer
24	107-409	1	Fahrgestell	Chassis
25	04-143	1	Haltewinkel	Locking angle
26	13-512	6	Scheibe	Washer
27	05-301	3	6kt-Schraube	Hex. bolt
28	02-168	2	Dichtleiste	Sealing tape
29	05-372	13	Scheibe	Washer
30	04-236	13	Hutmutter	Cap nut
31	05-341	4	Federring	Lock washer
32	05-308	8	6kt-Schraube	Hex. bolt
33	13-161	4	Schutzkappe	Protective cap
34	05-375	4	Scheibe	Washer
35	11-211	1	Lenkrolle	Guide roller
36	105-544	1	Halter	Holder
37	53-101	2	Klemmleiste	Clamping strip
38	105-550	1	Schürze	Apron
39	105-549	1	Strebe	Strut
40	04-283	1	Erdungskette	Earth chain
41	74-009	4	Sperrkantscheibe	Detent washer
42	74-036	2	Kabelmuffe	Grommet
43	05-373	2	Scheibe	Washer
44	105-548	1	Dichtprofil	Seal profil



## Chassis – Covering

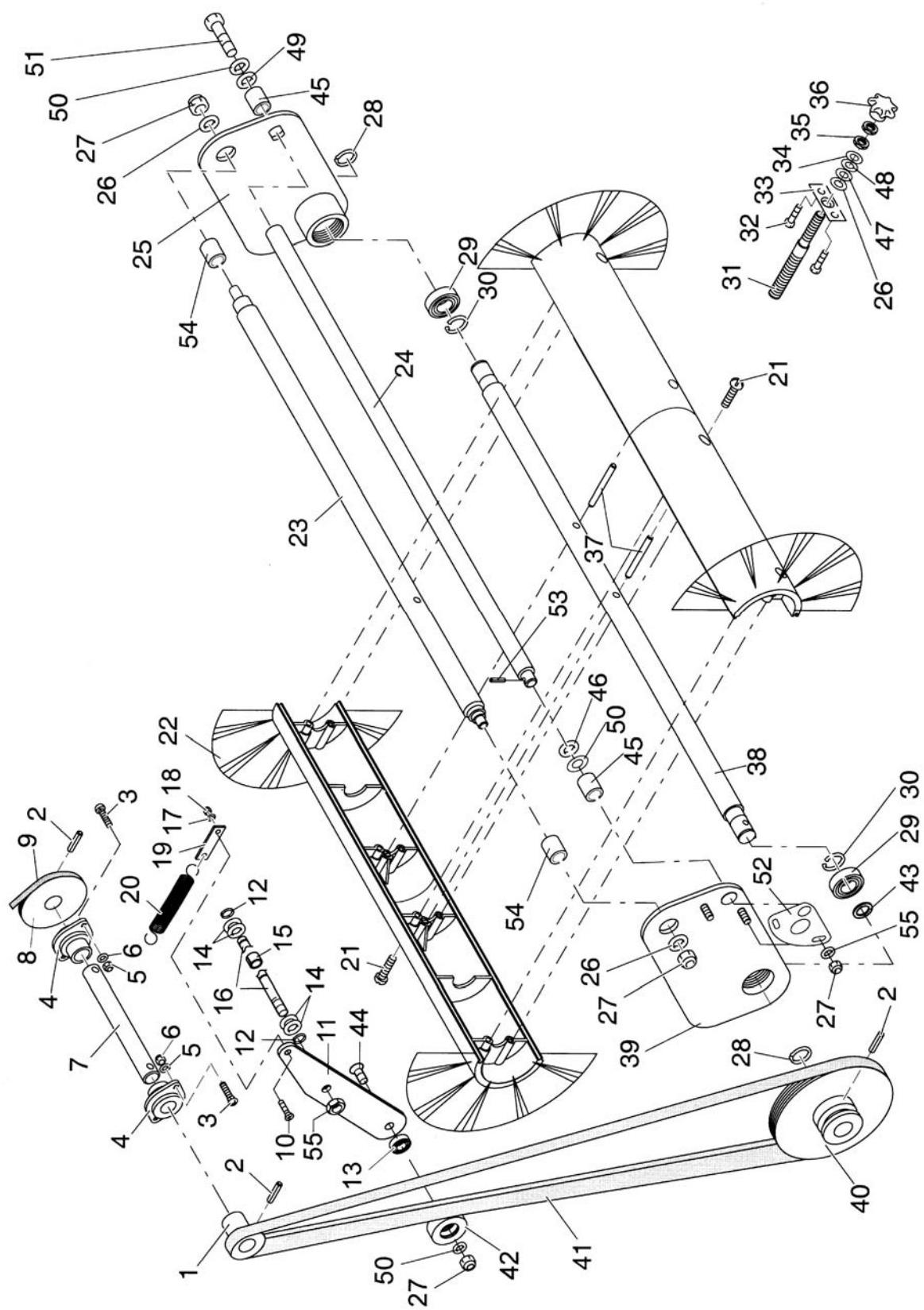
Bild Item Rép.	Best.-Nr. PN Réf. No.	Stck. Qty. Oté.	Teilbezeichnung	Description
45	105-545	1	Halter	Holder
46	05-152	3	6kt-Mutter	Hex. nut
47	13-383	2	6kt-Mutter	Hex. nut
48	05-332	2	6kt-Mutter	Hex. nut
49	05-151	2	6kt-Mutter	Hex. nut
50	07-423	4	Scheibe	Washer
51	53-105	1	Hebel	Lever
52	53-108	2	Strebe	Strut
53	15-280	2	6kt-Schraube	Hex. bolt
54	53-107	1	Platte	Plate
55	70-531	1	Zugfeder	Pull spring
56	105-547	1	Winkel	Angle
57	13-485	2	Blechschraube	Panel screw
58	73-962	1	Moosgummi	Foam rubber
59	105-546	1	Winkel	Angle
60	02-880	2	Tülle	Bush
61	05-396	4	Linsenblechschaube	Raised countersunk head screw
62	05-311	1	6kt-Schraube	Hex. bolt
63	107-338	1	Buchse	Bushing
64	05-335	1	6kt-Mutter	Hex. nut

		Aufkleber	Aufkleber	Decal
105-540	1	Aufkleber, Haubenverriegelung		Decal, look guard of hood
73-971	1	Aufkleber, Gebläse		Decal, ventilator
73-972	1	Motor, Start		Motor, start
107-353	1	Trägerfolie		Decal
300-116	1	Aufkleber, Seitenbesen		Decal, side broom
113-269	1	Aufkleber 12V		Decal, 12V
300-118	1	Aufkleber, Kehrwalze		Decal, Sweeper roller
107-171	1	Aufkleber, Bedienungsanleitung		Decal, instruction manual
300-119	1	Aufkleber, Pfeil		Decal
113-159	1	Aufkleber, drehende Teile		Decal, rotating parts



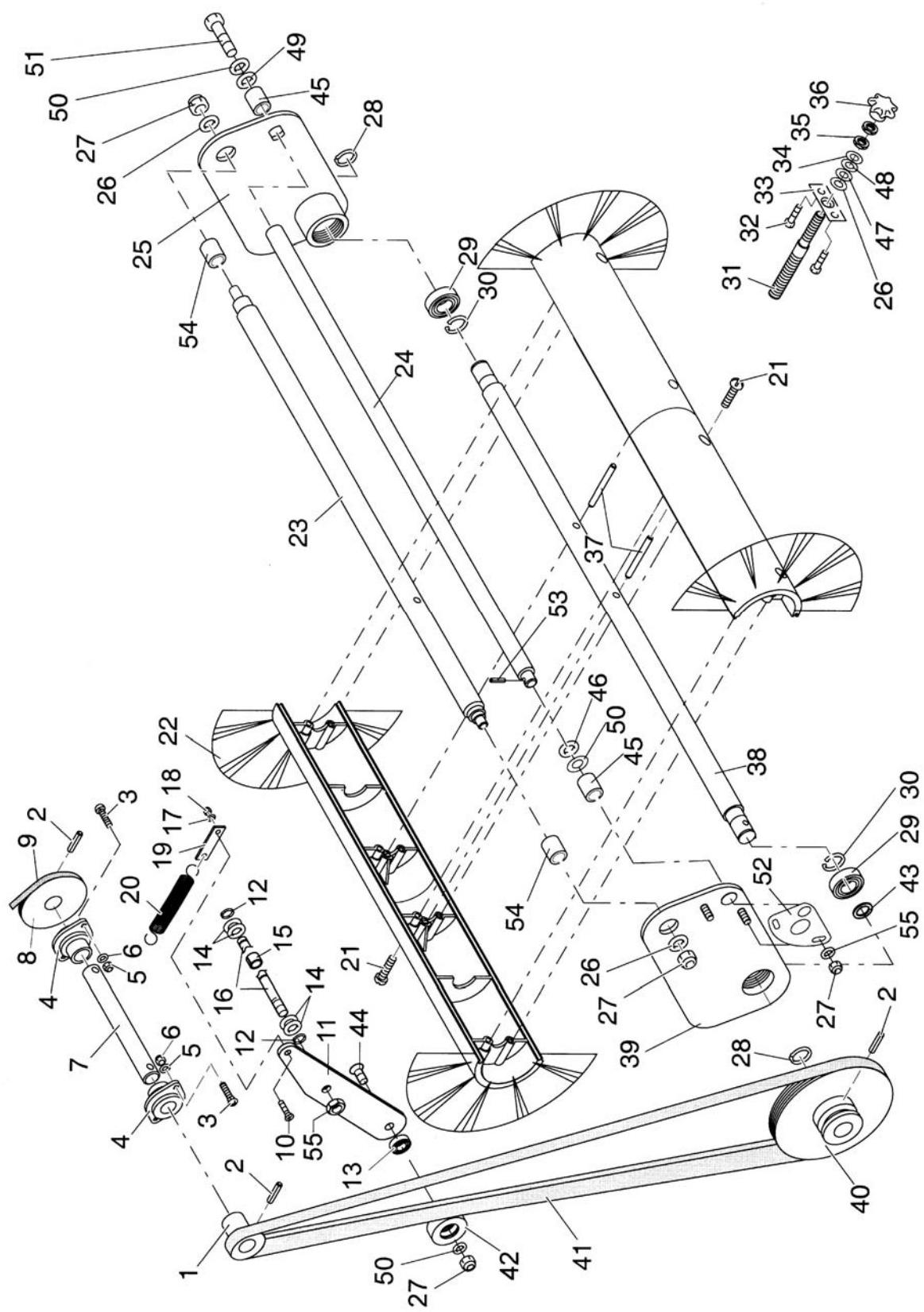
## Steering Handle

Bild Item Rép.	Best.-Nr. PN Réf. No.	Stck. Qty. Oté.	Teilbezeichnung	Description
1	12-223	1	Kugelknopf	Ball end
2	53-161	1	Schalthobel	Shift lever
3	05-152	1	6kt-Mutter	Hex. nut
4	15-120	1	Scheibe	Washer
5	07-790	1	DU-Buchse	DU-bushing
6	07-244	2	Sicherungsring	Retaining ring
7	105-265	1	Lenkholt	Steering handle
8	105-264	1	Griffbügel	Bow, handle
9	05-302	1	6kt-Schraube	Hex. bolt
10	107-084	1	Bowdenzug	Bowden cable
11	53-165	1	Schaltwelle	Shift shaft
12	05-373	1	Scheibe	Washer
13	53-454	1	Splint	Cotter pin
14	24-660	1	Bowdenzug	Bowden cable
15	05-333	3	6kt-Mutter	Hex. nut
16	15-468	1	Senkschraube	Countersunk screw
17	15-769	1	Hohlscheibe	Hollow disc
18	05-329	1	6kt-Schraube	Hex. bolt
19	52-591	1	Schutzkappe	Protective cap
20	05-151	6	6kt-Mutter	Hex. nut
21	74-009	4	Sperrkantscheibe	Detent washer
22	13-161	2	Schutzkappe	Protective cap
23	04-290	2	Scheibe	Washer
24	04-140	2	Gleitlagerbuchse	Slide bearing bushing



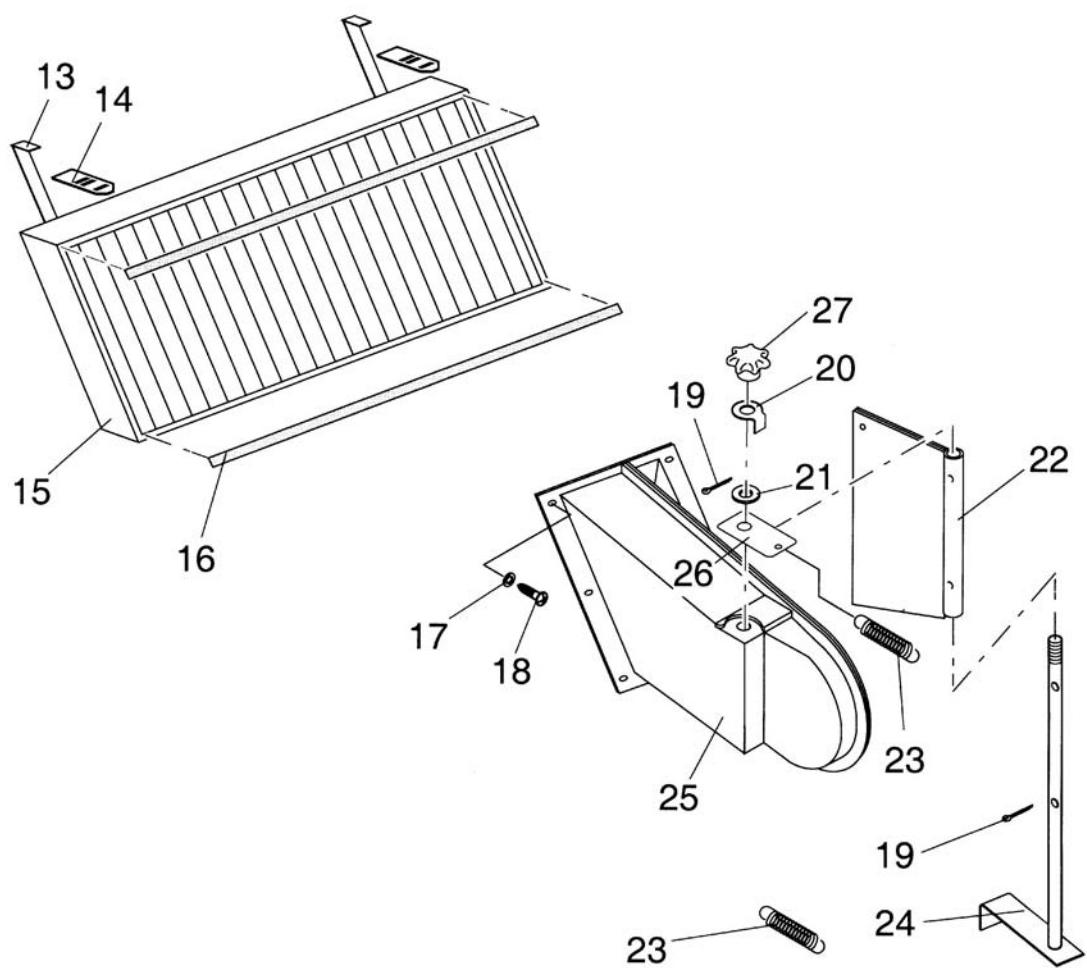
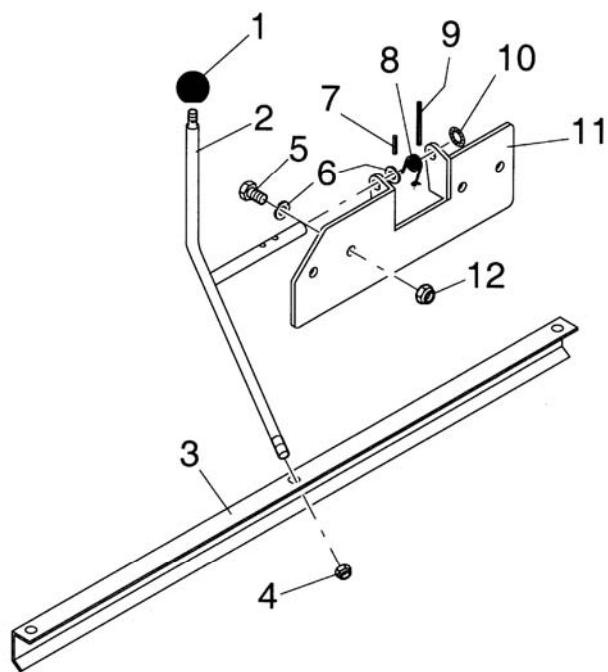
## Sweep Roller with Travel Drive

Bild Item Rép.	Best.-Nr. PN Réf. No.	Stck. Qty. Oté.	Teilbezeichnung	Description
1	53-129	1	Riemenscheibe	Belt pulley
2	05-758	3	Spannhülse	Tensioning sleeve
3	07-654	4	Flachrundschraube	Screw
4	92-852	2	Flanschlager	Bearing
5	05-373	4	Scheibe	Washer
6	05-152	4	6kt-Mutter	Hex. nut
7	105-510	1	Welle	Shaft
8	53-132	1	Riemenscheibe	Belt pulley
9	91-179	1	Riemen Conti-V	Belt conti-V
10	15-774	1	Senkschraube	Countersunk screw
11	107-113	1	Hebel	Lever
12	10-323	2	Sicherungsring	Retaining ring
13	12-633	1	Kugellager	Ball bearing
14	10-670	2	Scheibe	Washer
15	96-769	1	Gleitlager	Slide bearing
16	107-415	1	Bolzen	Bolt
17	05-372	1	Scheibe	Washer
18	05-134	1	6kt-Mutter	Hex. nut
19	53-143	1	Platte	Plate
20	70-531	1	Zugfeder	Pull spring
21	90-607	8	Linsenkopfschraube	Raised countersunk head screw
22	105-503	1	Kehrwalze	Sweeper roller
23	105-512	1	Verstellachse	Adjusting axle
24	105-511	1	Drehachse	Axle of rotation
25	105-508		Besenschwinge, links	Brushrocker, L.H.
26	05-375	3	Scheibe	Washer
27	05-151	4	6kt-Mutter	Hex. nut
28	02-223	2	Sicherungsring	Retaining ring
29	70-541	2	Kugellager	Ball bearing
30	13-310	4	Sicherungsring	Retaining ring
31	53-137	1	Gewindegelenk	Threaded bolt
32	15-280	2	6kt-Schraube	Hex. bolt
33	105-507	1	Lasche	Plate
34	12-607	1	Kugelscheibe	Ballwasher
35	73-355	2	6kt.-Mutter	Hex. nut
36	48-043	1	Handrad	Hand wheel
37	90-608	2	Zylinderstift	Cylinder pin
38	105-502	1	Besenwelle	Brush shaft
39	105-509	1	Besenschwinge, rechts	Brushrocker, R.H.



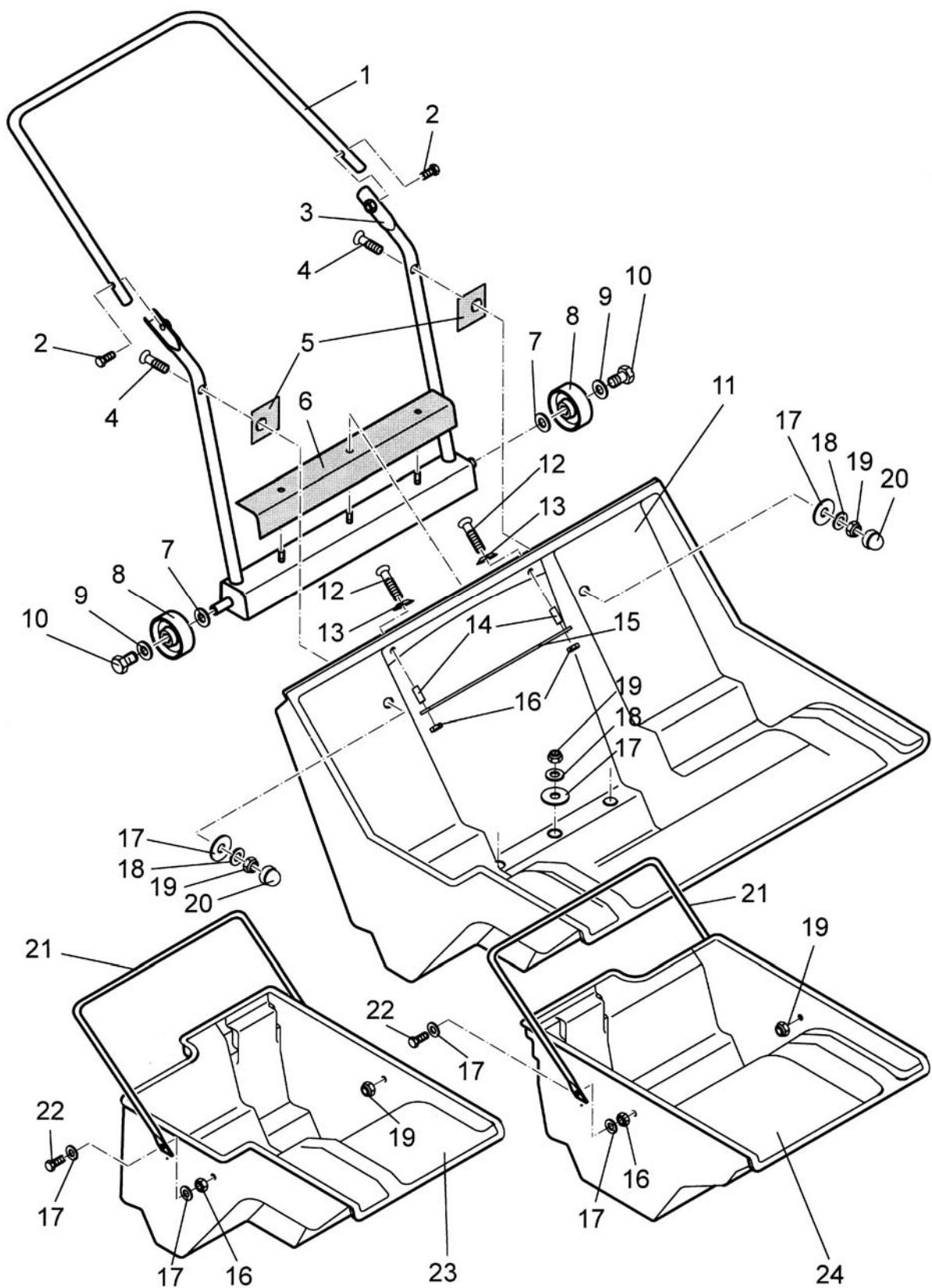
## Sweep Roller with Travel Drive

Bild Item Rép.	Best.-Nr. PN Réf. No.	Stck. Qty. Oté.	Teilbezeichnung	Description
40	53-130	1	Riemenscheibe	Belt pulley
41	91-182	1	Riemen Conti-V	Belt conti-V
42	53-135	1	Spannrolle	Idler pulley
43	04-159	2	Stützscheibe	Back-up disc
44	85-546	2	Senkschraube	Countersunk screw
45	105-514	2	Gleitlagerbuchse	Bushing
46	90-602	2	Paßscheibe	Adjusting shim
47	95-924	1	Fächerscheibe	Washer
48	50-307	4	Tellerfeder	Cup spring
49	15-253	1	Stützscheibe	Back-up disc
50	74-009	2	Sperrkantscheibe	Detent washer
51	05-309	1	6kt-Schraube	Hex. bolt
52	105-513	1	Platte	Plate
53	04-562	1	Spannhülse	Tensioning sleeve
54	105-515	1	Gleitlagerbuchse	Bushing
55	07-471	1	6kt-Mutter	Hex. nut
56	107-557	1	Buchse	Bushing
57	12-632	1	Sicherungsring	Retaining ring



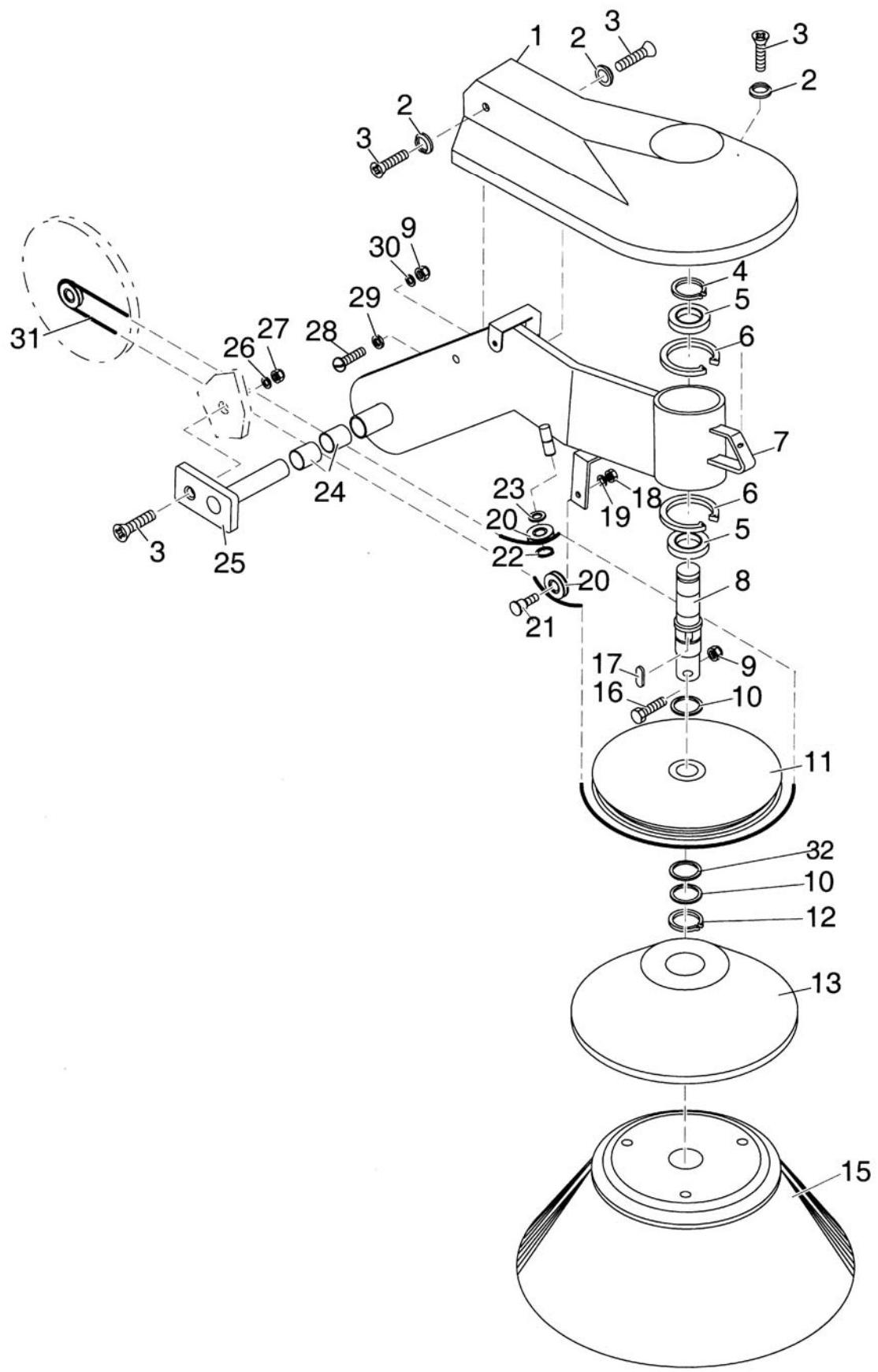
## Filter Installation

Bild Item Rép.	Best.-Nr. PN Réf. No.	Stck. Qty. Oté.	Teilbezeichnung	Description
1	15-467	1	Kugelkopf	Ball element
2	69-678	1	Hebel	Lever
3	28-228	1	Profilschiene	Profile bar
4	05-152	1	6kt-Mutter	Hex. nut
5	05-310	4	6kt-Schraube	Hex. bolt
6	05-375	5	Scheibe	Washer
7	02-506	1	Spannstift	Tightening pin
8	69-667	1	Schenkelfeder	Spring
9	04-680	1	Spiralstift	Spiral pin
10	85-442	1	Sicherungsscheibe	Retaining washer
11	69-679	1	Halteplatte	Hold plate
12	05-151	4	6kt-Mutter	Hex. nut
13	05-989	2	Spannband	Tightening strap
14	107-276	2	Lasche	Plate
15	34-091	1	Plattenfilter	Plate filter
16	74-862	2	Tesamoll	Tesamoll
17	13-512	6	Scheibe	Washer
18	05-396	6	Linsenblechschraube	Raised countersunk head screw
19	96-152	2	Splint	Cotter pin
20	05-250	1	Sicherungsblech	Locking plate
21	02-061	1	Stützscheibe	Back-up disc
22	53-156	1	Klappe	Flap
23	53-695	2	Zugfeder	Pull spring
24	53-157	1	Drehhebel	Turning lever
25	91-197	1	Saugkanal	Suction channel
26	53-154	1	Platte	Plate
27	107-105	1	Kreuzgriff	Star handle



## Lifter Hopper

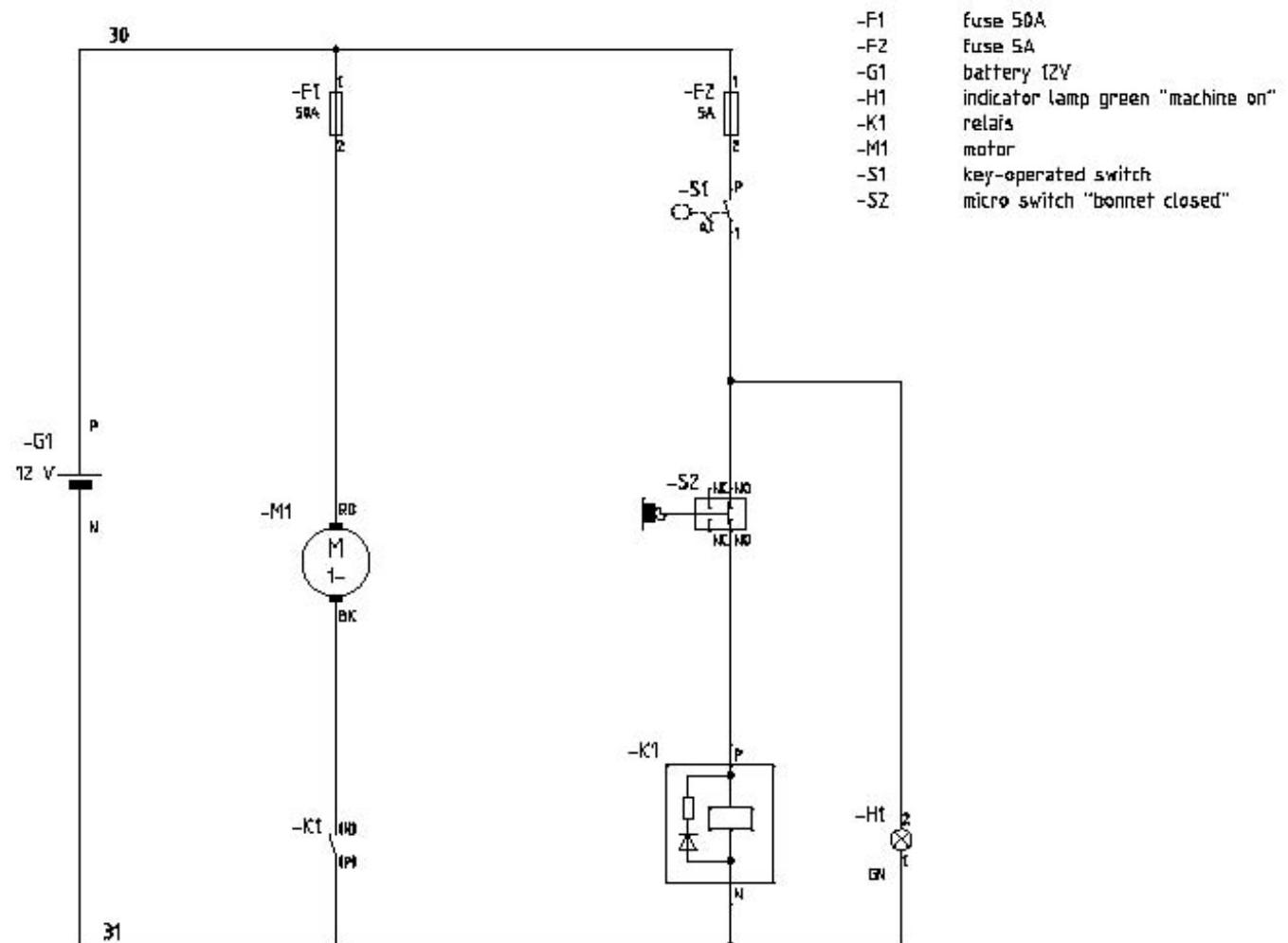
Bild Item Rép.	Best.-Nr. PN Réf. No.	Stck. Qty.	Teilbezeichnung	Description
1	105-516	1	Bügelgriff	Bow handle
2	55-116	2	Senkschraube	Countersunk screw
3	105-517	1	Träger	Bracket
4	12-601	2	Senkschraube	Countersunk screw
5	105-523	2	Gummilasche	Rubber strap
6	105-524	1	Gummiabdeckung	Rubber covering
7	05-378	2	Scheibe	Washer
8	105-522	2	Rad	Wheel
9	74-008	2	Sperrkantscheibe	Safety washer
10	15-181	2	6kt-Schraube	Hex.bolt
11	107-553	1	Schmutzbehälter	Lifter hopper
12	10-950	2	Senkschraube	Countersunk screw
13	15-769	2	Hohlscheibe	Hollow disc
14	53-160	2	Abstandshülse	Spacer sleeve
15	53-158	1	Strebe	Strut
16	13-579	6	6kt-Mutter	Hex. nut
17	13-512	17	Scheibe	Washer
18	10-072	5	Scheibe	Washer
19	05-152	9	6kt-Mutter	Hex. nut
20	52-591	2	Schutzkappe	Protective cap
21	105-521	2	Bügelgriff	Bow handle
22	15-407	4	6kt-Schraube	Hex. bolt
23	105-519	1	Behälter, rechts	Hopper, R.H.
24	105-520	1	Behälter, links	Hopper, L.H.



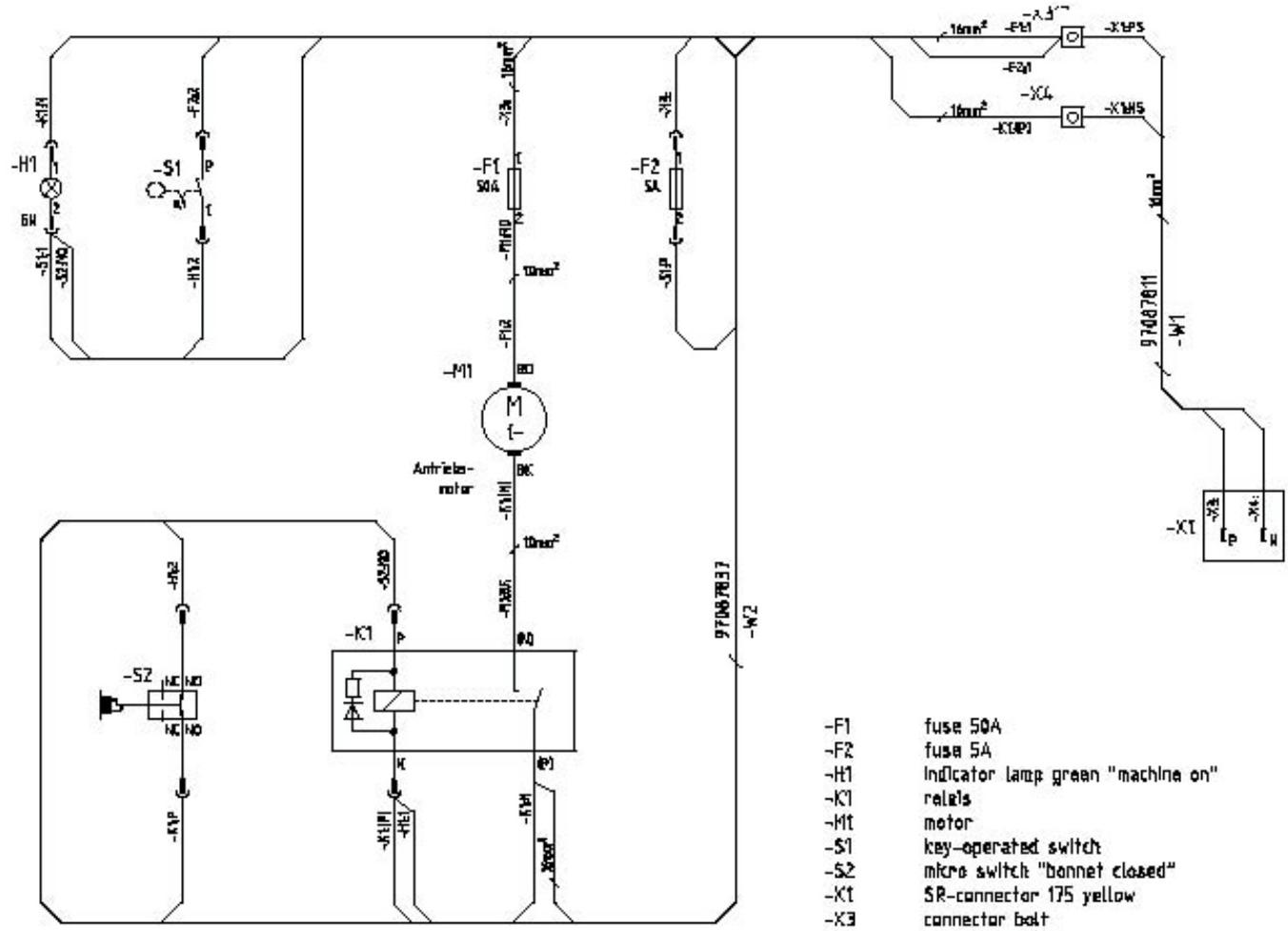
## Side Brush Drive

Bild Item Rép.	Best.-Nr. PN Réf. No.	Stck. Qty. Oté.	Teilbezeichnung	Description
1	91-194	1	Abdeckhaube	Covering hood
2	07-621	3	Hohlscheibe	Hollow disc
3	15-774	4	Senkschraube	Countersunk screw
4	02-234	1	Sicherungsring	Retaining ring
5	70-636	2	Kugellager	Ball bearing
6	12-632	2	Sicherungsring	Retaining ring
7	91-192	1	Besenarm	Brush arm
8	53-117	1	Welle	Shaft
9	05-152	2	6kt-Mutter	Hex. nut
10	10-176	2	Paßscheibe	Adjusting shim
11	53-120	1	Riemenscheibe	Belt pulley
12	10-145	1	Sicherungsring	Retaining ring
13	67-089	1	Abweisteller	Fleeting plate
15	01-073	1	Seitenbesen	Side brush
16	05-304	1	6kt-Schraube	Hex. bolt
17	96-749	1	Paßfeder	Adjusting spring
18	05-333	1	6kt-Mutter	Hex. nut
19	05-340	1	Federring	Lock washer
20	53-122	2	Seilrolle	Rope pulley
21	53-124	1	Bolzen	Bolt
22	10-323	1	Sicherungsring	Retaining ring
23	10-670	1	Scheibe	Washer
24	10-696	2	DU-Buchse	DU-bushing
25	53-113	1	Steckbolzen	Socket pin
26	05-372	1	Scheibe	Washer
27	05-134	1	6kt-Mutter	Hex. nut
28	10-179	1	Schraube	Screw
29	13-579	1	6kt-Mutter	Hex. nut
30	05-373	1	Scheibe	Washer
31	91-177	1	Rundriemen	Round belt
32	90-602	1	Paßscheibe	Adjusting shim

## Circuit Diagram



## Wiring Diagram



## LIMITED WARRANTY

Minuteman International, Inc. warrants to the original purchaser/user that this product is free from defects in workmanship and materials under normal use and service for a period of one year from date of purchase. In addition, Minuteman International, Inc. will, at its option, honor labor warranty claims for the first 6 months from date of sale, provided such claims are submitted through and approved by factory authorized repair stations. Minuteman International, Inc. will, at its option, repair or replace without charge, except for transportation costs, parts that fail under normal use and service when operated and maintained in accordance with the applicable operation and instruction manuals.

This warranty does not apply to normal wear, or to items whose life is dependent on their use and care, such as belts, cords, switches, hoses, rubber parts, electrical motor components or adjustments. Parts not manufactured by Minuteman International, Inc. such as engines, batteries, battery chargers, hydraulic pumps, and tires are covered by and subject to the warranties and/or guarantees of their manufacturers. Please contact Minuteman International, Inc. for procedures in warranty claims against these manufacturers.

**Special warning to purchaser --** Use of replacement filters and/or prefilters not manufactured by Minuteman International, Inc. or its designated licensees, will void all warranties expressed or implied.

A potential health hazard exists without exact original equipment replacement.

All warranted items become the sole property of Minuteman International, Inc. or its original manufacturer, whichever the case may be.

Minuteman International, Inc. disclaims any implied warranty, including the warranty of merchantability and the warranty of fitness for a particular purpose. Minuteman International, Inc. assumes no responsibility for any special, incidental or consequential damages.

This limited warranty is applicable only in the U.S.A. and Canada, and is extended only to the original user/purchaser of this product. Customers outside the U.S.A. and Canada should contact their local distributor for export warranty policies. Minuteman International, Inc. is not responsible for costs or repairs performed by persons other than those specifically authorized by Minuteman International, Inc. This warranty does not apply to damage from transportation, alterations by unauthorized persons, misuse or abuse of the equipment, use of non-compatible chemicals, or damage to property, or loss of income due to malfunctions of the product.

If a difficulty develops with this machine, you should contact the dealer from whom it was purchased.

This warranty gives you specific legal rights, and you may have other rights which vary from state to state. Some states do not allow the exclusion or limitation of special, incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions and limitations may not apply to you.



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